

Determination of Rangeland Health

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these Standards.

Field assessment worksheets and other available data which evaluate the local indicators, were completed for this allotment. The indicators that ranked in the "moderate" category should continue to be monitored.

Based on the assessments, it is my determination that the Public Lands within the Otto Brittain Allotment #65094 meet the Upland Sites Standard and (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard. There are no Public Land riparian areas on this allotment, therefore this Standard will not be addressed.

/s/ T. R. KREAGER

Assistant Field Manager

08/25/2003

Date

Standards of Public Land Health

Evaluation of 65094 OTTO BRITAIN Allotment

[11/12/2002]

The Roswell Field Office conducted rangeland health assessments at two study sites within OTTO BRITAIN ALLOTMENT 65094. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65094-EAST COMANCHE- D185	X	*		X	*		N/A		
65094-WEST COMANCHE- D186	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the Otto Britain allotment; 10 of these assessed met Ranch; 10 of these assessed soil/site stability, 11 assessed hydrologic functions and 13 assessed biotic integrity. These qualitative assessments along with quantitative information from long-term monitoring studies on two study areas on the allotment were utilized to assess the rangeland health of the public land within the allotment. These quantitative evaluations were performed by the Roswell Field office staff starting in the early 1980's. These included ground and vegetative cover and composition, production, frequency, and ecological condition as calculated from these collections which have been scheduled approximately every 5 years.

While drought over the past three years has had an impact on these sites, the assessments of the indicators range from Moderate down to Slight to None. The exception being the presence of invasive plants (prickly pear) both sites. The presence of prickly pear is extensive in both areas but does not appear to be connected with disturbance (at least recent disturbance).

To some extent livestock trailing to and from water and roads are contributing to rill formation on gyp soils on the upper slopes within the East Comanche site. The west part of this site has also been impacted by the activities conducted within the National Guard training area. There are shallow sand inclusions in the northern part of this site that

dominated by creosote. During the field review, the presence of a small prairie dog colony was noted in the vicinity of the water tub in this pasture.

Monitoring will continue on the allotment and the attributes which were rated as Moderate or Moderate/Extreme will continue to be reviewed to detect changes that may occur.

In the professional opinion of the Assessment Team, these sites meet the Standards of Rangeland Health.

Recommendations: BLM staff and allotment operator need to look into the water system problems within this allotment. It is possible that the relocation of water trough in the East pasture could halt the rill development along the upper slope areas.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 65094-EAST COMANCHE-D185						
Legal Land Desc	NWNW 29 0100S 0260E Meridian 23		Acreage	2555		
Ecosite			Photo Taken	N		
Watershed	13060007010 GOPHER					
Observers	RFO ASSESSMENT TEAM		Observation Date	11/12/2002		
County Soil Survey	NM644 CHAVES NORTH		Soil Var/Taxad			
Soil Map Unit	HMA		Soil Taxon Name	HOLLOMEX		
Texture Class	NM644 L		Soil Phase	HOLLOMEX- REEVES-MILNER		
Texture Modifier	NM644 LOAM,DRY					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	12.41		NOAA Growing Season Precipitation	8.4		
NOAA Avg Annual Precipitation	13.17		NOAA Avg Growing Season Precipitation	10.83		
Disturbances and Animal Use:	Livestock grazing in pasture. Prehaps watersystem problems are concentrating livestock in this pasture.					
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills			X		
Comments:	Along roads/livestock trails on upper slope areas.					
S H	Water Flow Patterns			X		
Comments:	Borderline with moderate/extreme					
S H	Pedestals and/or Terracettes			X		
Comments:						
S H	Bare Ground			X		

Comments:	Borderline with slight/moderate					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement			X		
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Due more to surface texture/crust than organic matter					
S H B	Soil Surface Loss or Degradation			X		
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Grama grass component reduced					
B	Plant Mortality/Decadence					X
Comments:	Less mortality/decadence probably due to livestock grazing					
H B	Litter Amount			X		
Comments:						
B	Annual Production			X		
Comments:						
B	Invasive Plants				X	
Comments:	Opuntia is heavy in some areas perhaps due to past disturbances					
B	Reproductive Capability of Perennial Plants			X		
Comments:	Low vigor/pedestaling					
S	Physical/Chemical/Biological Crusts				X	
Comments:	More physical crust					

B	Wildlife Habitat					X
Comments:						
B	Wildlife Populations					X
Comments:						
B	Special Status Species Habitat					X
Comments:	Small prairie dog colony to the NW in vicinity of water trough					
B	Special Status Species Populations					X
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	5	2	3
H	Hydrologic	0	0	8	1	2
B	Biotic	0	0	5	2	6

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Meets but within the lower range, continue to monitor to detect any changes that may be detrimental to the site.	0	5	5

Hydrologic	Meets but within the lower range, continue to monitor to detect any changes that may be detrimental to the site.	0	8	3
Biotic	Meets but within the lower range, continue to monitor to detect any changes that may be detrimental to the site.	0	5	8
<p>Site Notes: Includes the SE trap. To some extent livestock trailing to and from water and roads are contributing to rill formation on gyp soils on the upper slopes within the East Comanche site. The west part of this site has also been impacted by the activities conducted within the National Guard training area. There are shallow sand inclusions in the northern part of this site that dominated by creosote. During the field review, the presence of a small prairie dog colony was noted in the vicinity of the water tub in this pasture.</p>				

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 65094-WEST COMANCHE-D186						
Legal Land Desc	SENE 26 0100S 0250E Meridian 23	Acreage	2504			
Ecosite		Photo Taken	N			
Watershed	13060007010 GOPHER					
Observers	RFO ASSESSMENT TEAM	Observation Date	11/12/2002			
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad				
Soil Map Unit	HrC	Soil Taxon Name	HOLLOMAN			
Texture Class	NM666 L	Soil Phase	HOLLOMAN- GYPSUM LAND			
Texture Modifier	NM666 LOAM					
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation				
NOAA Annual Precipitation	12.41	NOAA Growing Season Precipitation	8.4			
NOAA Avg Annual Precipitation	13.17	NOAA Avg Growing Season Precipitation	10.83			
Disturbances and Animal Use:	Livestock present but water problems seem to be limiting distribution					
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:	Seem to be more pronounced on the gypy inclusions					
S H	Pedestals and/or Terracettes				X	
Comments:						

S H	Bare Ground				X	
Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion					X
Comments:						
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups					X
Comments:						
B	Plant Mortality/Decadence				X	
Comments:	Affects of drought					
H B	Litter Amount					X
Comments:						
B	Annual Production				X	
Comments:	Based on occular estimate at this time -- sdy data may be lower					
B	Invasive Plants				X	
Comments:	Opuntia is heavy in some areas but does not appear to be resulting from disturbances.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological					X

	Crusts					
Comments:	Biogological crust are frequent and on both loamy and gyp areas					
B	Wildlife Habitat					X
Comments:						
B	Wildlife Populations					X
Comments:						
B	Special Status Species Habitat					X
Comments:						
B	Special Status Species Populations					X
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

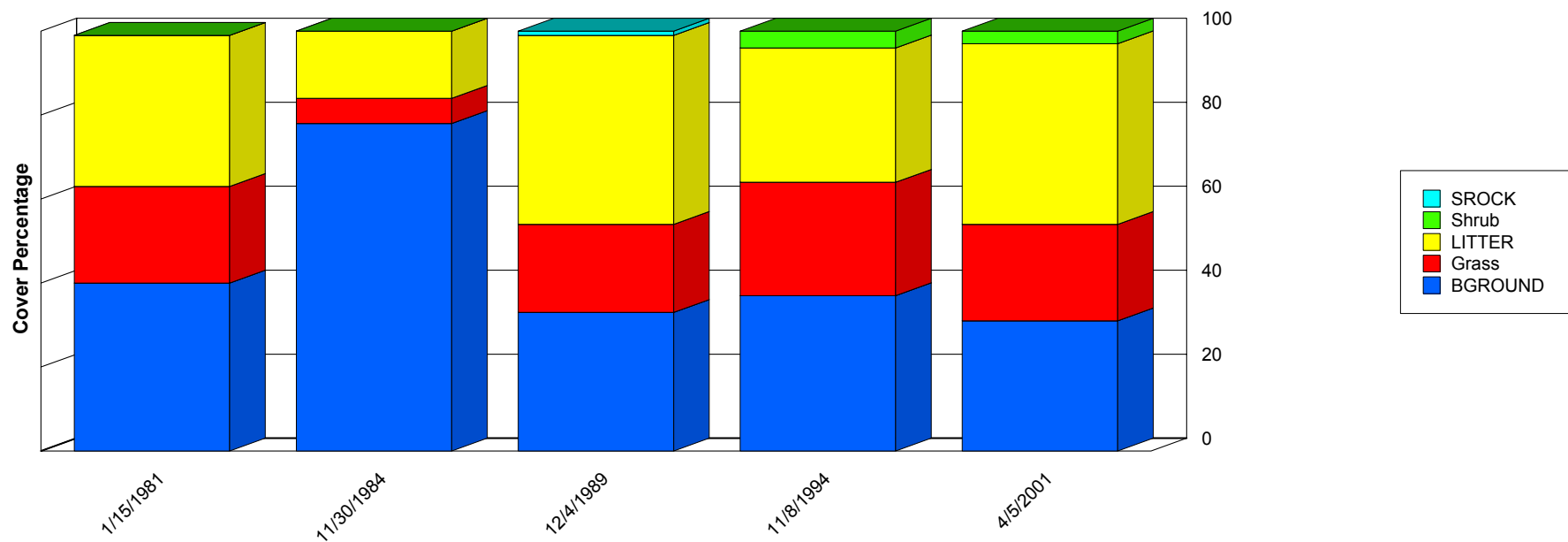
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	3	7
H	Hydrologic	0	0	0	3	8
B	Biotic	0	0	0	3	10

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10

Hydrologic		0	0	11
Biotic		0	0	13
Site Notes: This site may be one of the better sites representing this soil mapping unit HrC. It could be used as a reference area.				

Ground Cover Trends



	1/15/1981	11/30/1984	12/4/1989	11/8/1994	4/5/2001
BGROUND	40.00	78.00	33.00	37.00	31.00
Grass	23.00	6.00	21.00	27.00	23.00
LITTER	36.00	16.00	45.00	32.00	43.00
Shrub	0.00	0.00	0.00	4.00	3.00
SROCK	0.00	0.00	1.00	0.00	0.00
Total	99.00	100.00	100.00	100.00	100.00

Report Parameters

SITE NAME LIKE 65094-EAST COMANCHE-D185
 ON/AFTER 10/01/1979
 ON/BEFORE 09/30/2001

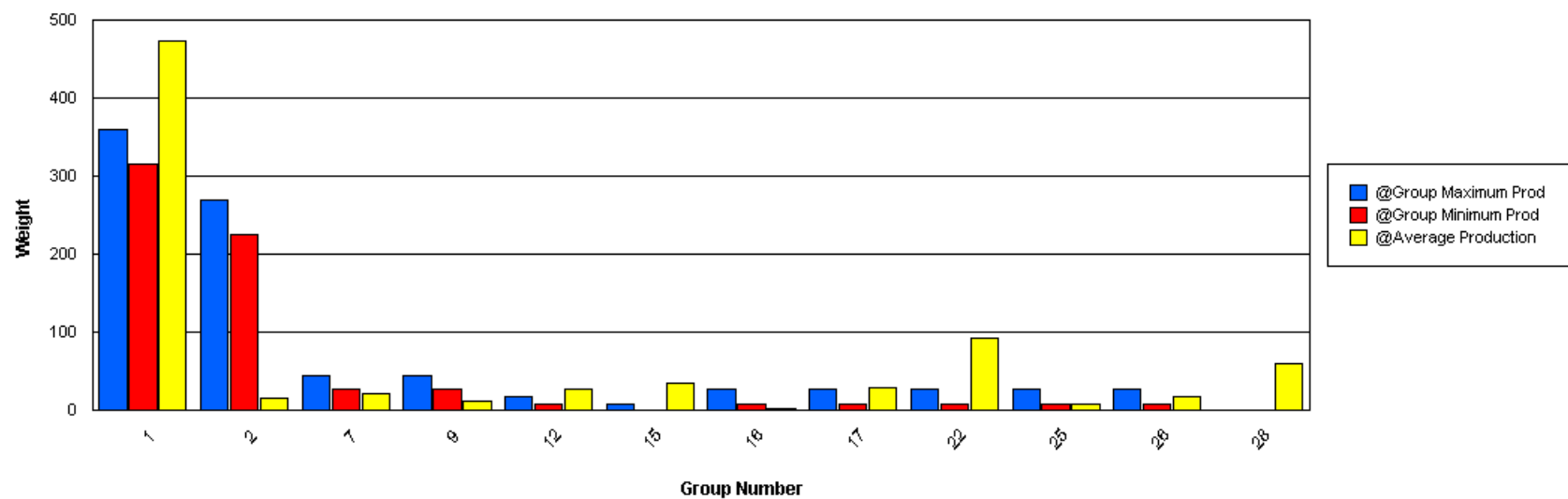
Functional / Structural Groups

Report Parameters

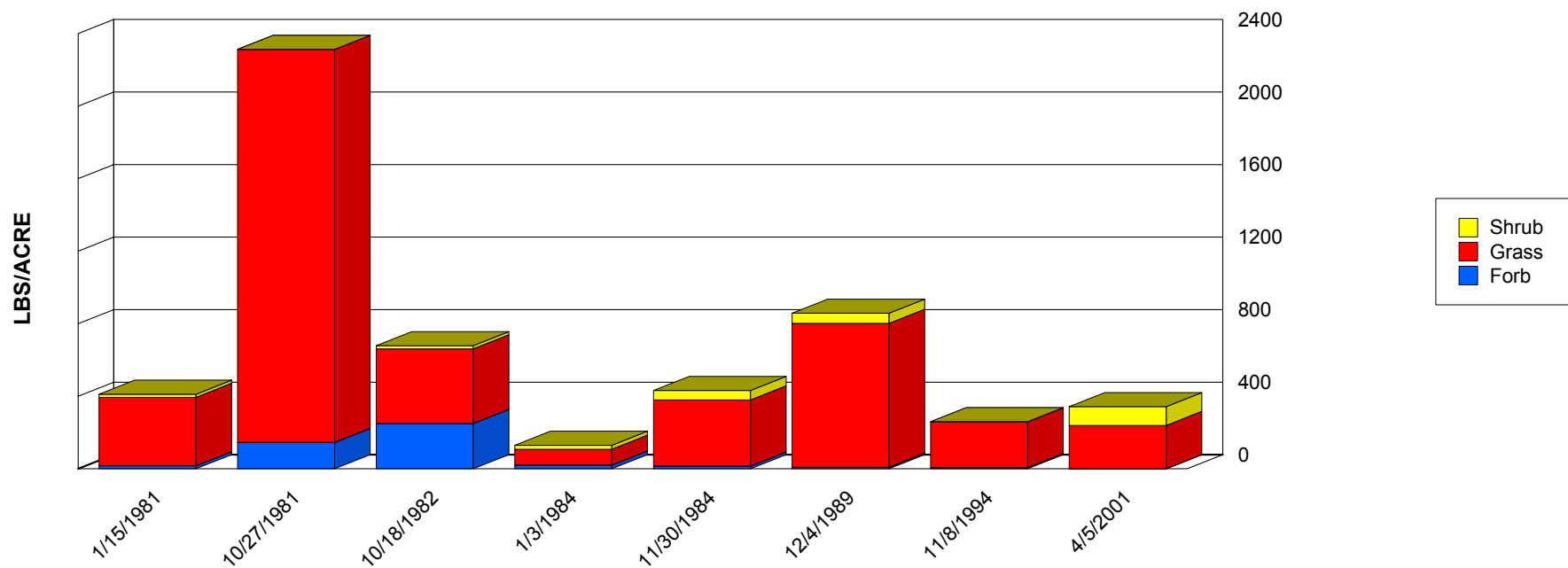
SITE NAME LIKE 65094-EAST COMANCHE-D185
 ON/AFTER 10/01/1979
 ON/BEFORE 09/30/2001
 MIN LBS TO GRAPH 3
 SELECTED ECOSITE 042CY007NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	70.00	2,042.00	442.38	619.68
1	Grass	SCBR2	315	360	3.00	52.00	30.88	18.84
2	Grass	BOER4	225	270	0.00	23.00	9.50	8.14
2	Grass	BOGR2	225	270	0.00	26.00	6.00	7.84
7	Grass	ARIST	27	45	0.00	76.00	15.83	27.50
7	Grass	SPCR	27	45	0.00	22.00	6.00	6.76
9	Grass	MUAR	27	45	0.00	55.00	11.71	18.26
11	Grass	ENDE	9	27	0.00	1.00	0.17	0.37
12	Grass	PAHA	9	18	0.00	125.00	27.00	41.46
15	Grass	TRPI2	0	9	0.00	180.00	35.14	61.43
16	Grass	AAGG	9	27	0.00	11.00	2.67	4.15
16	Grass	MUSQ	9	27	0.00	1.00	0.50	0.50
17	Grass	BOHI2	9	27	0.00	5.00	1.25	2.17
17	Grass	ERPU8	9	27	0.00	8.00	2.20	3.12
17	Grass	PARA2	9	27	0.00	72.00	18.00	31.18
17	Grass	SCPA	9	27	0.00	10.00	2.50	4.33
17	Grass	SPFL2	9	27	0.00	14.00	3.50	6.06
17	Grass	SPNE	9	27	0.00	10.00	1.57	3.46
18	Forb	SPHAE	9	27	0.00	5.00	1.50	2.06
19	Forb	CROTO	9	27	0.00	6.00	1.43	2.13
19	Forb	LESQU	9	27	0.00	4.00	0.80	1.60
19	Forb	PENA	9	27	0.00	2.00	0.50	0.76
21	Forb	ERTE13	9	27	0.00	8.00	2.83	3.18
22	Forb	AAFF	9	27	0.00	13.00	6.33	4.46
22	Forb	CIRSI	9	27	0.00	232.00	58.00	100.46
22	Forb	PECTI	9	27	0.00	136.00	28.20	53.93

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
23	Forb	CHAMA8	9	27	0.00	0.00	0.00	0.00
24	Forb	EUPHO	9	27	0.00	1.00	0.25	0.43
24	Forb	MELE2	9	27	0.00	1.00	0.50	0.50
24	Forb	SOEL	9	27	0.00	3.00	0.80	1.17
25	Shrub	EPHED	9	27	0.00	17.00	8.33	6.94
26	Shrub	GUSA2	9	27	0.00	52.00	11.57	17.31
26	Shrub	OPUNT	9	27	0.00	24.00	6.00	9.37
27	Shrub	HAPLO2	9	27	0.00	1.00	0.25	0.43
28	Shrub	PRGL2	0	0	32.00	89.00	60.50	28.50



Production Lbs/Acre Trends

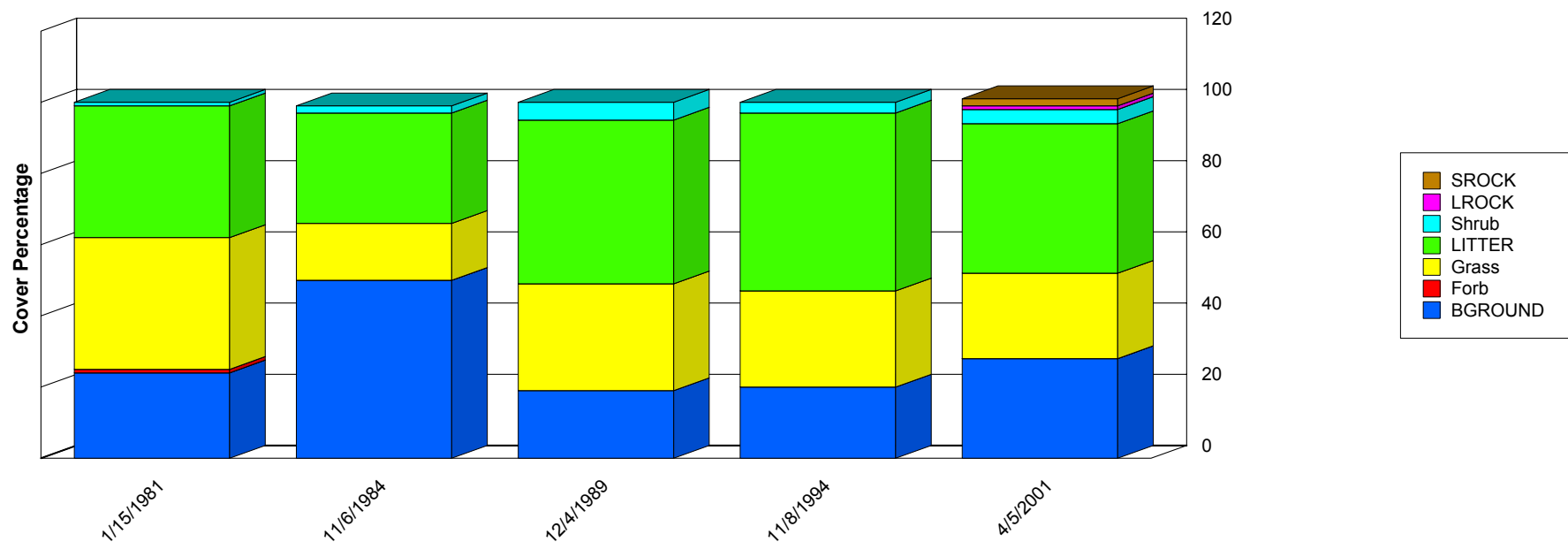


	1/15/1981	10/27/1981	10/18/1982	1/3/1984	11/30/1984	12/4/1989	11/8/1994	4/5/2001
Forb	17.00	145.00	250.00	21.00	15.00	9.00	7.00	0.00
Grass	377.00	2,168.00	411.00	87.00	365.00	793.00	252.00	239.00
Shrub	17.00	0.00	18.00	22.00	52.00	56.00	1.00	104.00
Total	411.00	2,313.00	679.00	130.00	432.00	858.00	260.00	343.00

Report Parameters

SITE NAME LIKE 65094-EAST COMANCHE-D185
 ON/AFTER 10/01/1979
 ON/BEFORE 09/30/2001

Ground Cover Trends



	1/15/1981	11/6/1984	12/4/1989	11/8/1994	4/5/2001
BGROUND	24.00	50.00	19.00	20.00	28.00
Forb	1.00	0.00	0.00	0.00	0.00
Grass	37.00	16.00	30.00	27.00	24.00
LITTER	37.00	31.00	46.00	50.00	42.00
LROCK	0.00	0.00	0.00	0.00	1.00
Shrub	1.00	2.00	5.00	3.00	4.00
SROCK	0.00	0.00	0.00	0.00	2.00
Total	100.00	99.00	100.00	100.00	101.00

Report Parameters

SITE NAME LIKE 65094-WEST COMANCHE-D186
 ON/AFTER 10/01/1979
 ON/BEFORE 09/30/2001

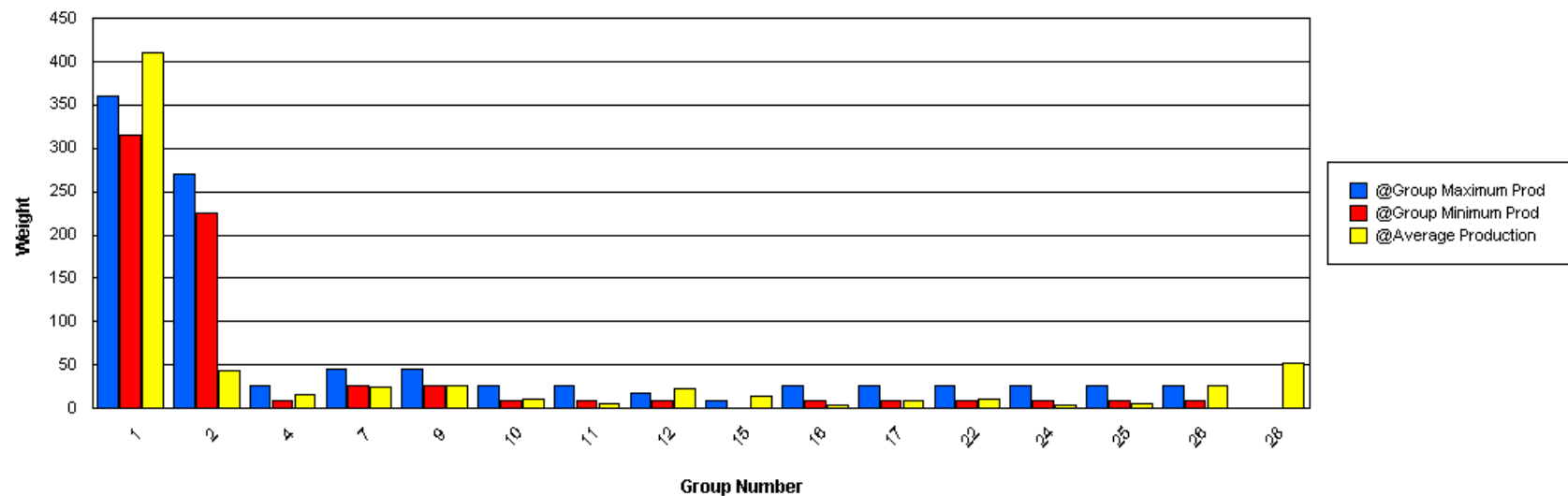
Functional / Structural Groups

Report Parameters

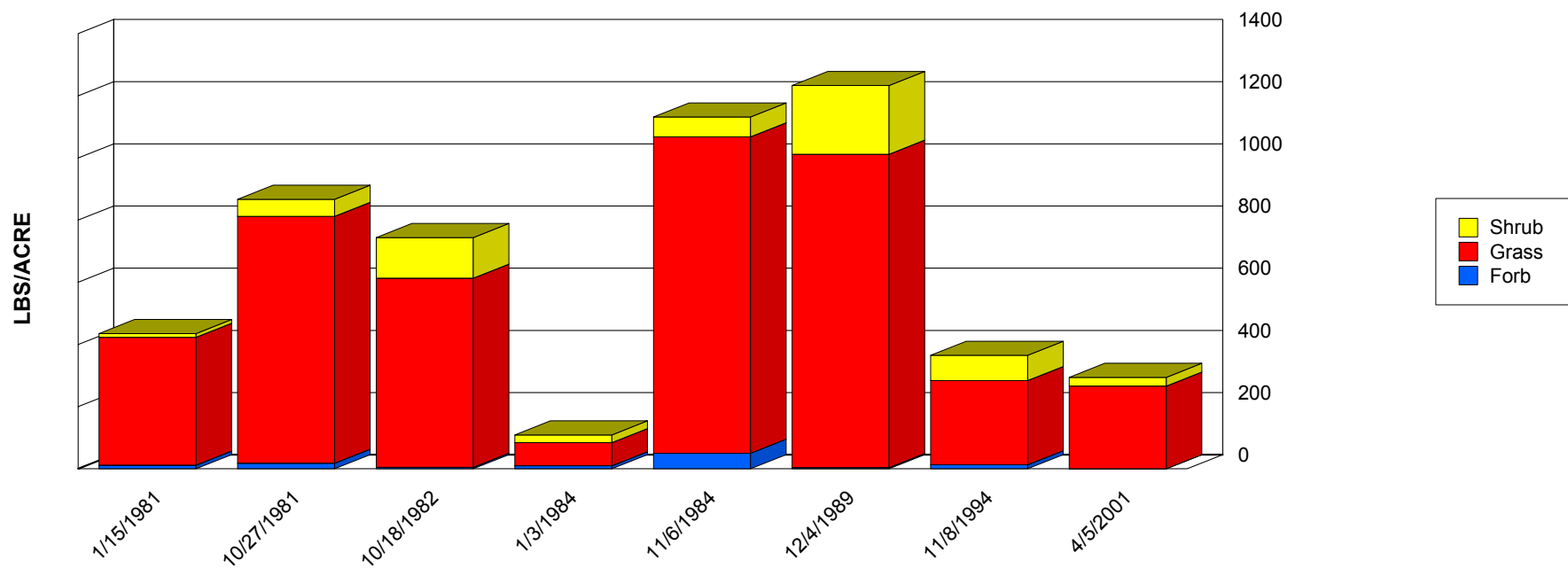
SITE NAME LIKE 65094-WEST COMANCHE-D186
 ON/AFTER 10/01/1979
 ON/BEFORE 09/30/2001
 MIN LBS TO GRAPH 3
 SELECTED ECOSITE 042CY007NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	42.00	816.00	385.63	256.65
1	Grass	SCBR2	315	360	2.00	60.00	24.00	22.21
2	Grass	BOER4	225	270	0.00	71.00	34.00	27.42
2	Grass	BOGR2	225	270	0.00	22.00	9.00	7.26
4	Grass	MUPO2	9	27	0.00	62.00	15.14	22.08
7	Grass	ARIST	27	45	0.00	11.00	6.33	4.64
7	Grass	SPCR	27	45	0.00	80.00	19.00	25.14
9	Grass	MUAR	27	45	0.00	62.00	16.29	19.90
9	Grass	MUAR2	27	45	0.00	51.00	10.88	16.03
10	Grass	BOBR	9	27	2.00	17.00	11.00	6.48
11	Grass	ENDE	9	27	0.00	16.00	5.71	5.82
12	Grass	PAHA	9	18	0.00	142.00	22.71	48.79
15	Grass	TRPI2	0	9	0.00	62.00	14.20	24.04
16	Grass	AAGG	9	27	0.00	8.00	3.14	3.64
17	Grass	ERPU8	9	27	0.00	5.00	1.57	1.99
17	Grass	PARA2	9	27	0.00	23.00	5.75	9.96
17	Grass	SPFL2	9	27	0.00	3.00	0.75	1.30
17	Grass	SPNE	9	27	0.00	5.00	1.33	1.97
18	Forb	SPHAE	9	27	0.00	1.00	0.17	0.37
19	Forb	PENA	9	27	0.00	7.00	1.83	2.54
21	Forb	ERTE13	9	27	0.00	5.00	1.00	1.69
22	Forb	AAFF	9	27	0.00	41.00	11.00	13.84
23	Forb	CHAMA8	9	27	0.00	8.00	1.60	3.20
24	Forb	EUPHO	9	27	0.00	4.00	1.00	1.73
24	Forb	LEER	9	27	0.00	1.00	0.20	0.40
24	Forb	PPFF	9	27	1.00	4.00	2.50	1.50

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
24	Forb	SOEL	9	27	0.00	2.00	1.00	1.00
25	Shrub	EPHED	9	27	0.00	13.00	5.17	4.88
26	Shrub	GUSA2	9	27	0.00	48.00	22.13	15.34
26	Shrub	OPUNT	9	27	0.00	35.00	4.56	10.81
27	Shrub	HAPLO2	9	27	0.00	10.00	2.50	4.33
28	Shrub	PRGL2	0	0	0.00	180.00	53.00	71.27



Production Lbs/Acre Trends



	1/15/1981	10/27/1981	10/18/1982	1/3/1984	11/6/1984	12/4/1989	11/8/1994	4/5/2001
Forb	12.00	18.00	5.00	10.00	50.00	4.00	13.00	0.00
Grass	411.00	794.00	608.00	74.00	1,018.00	1,008.00	271.00	266.00
Shrub	12.00	55.00	131.00	25.00	64.00	221.00	81.00	28.00
Total	435.00	867.00	744.00	109.00	1,132.00	1,233.00	365.00	294.00

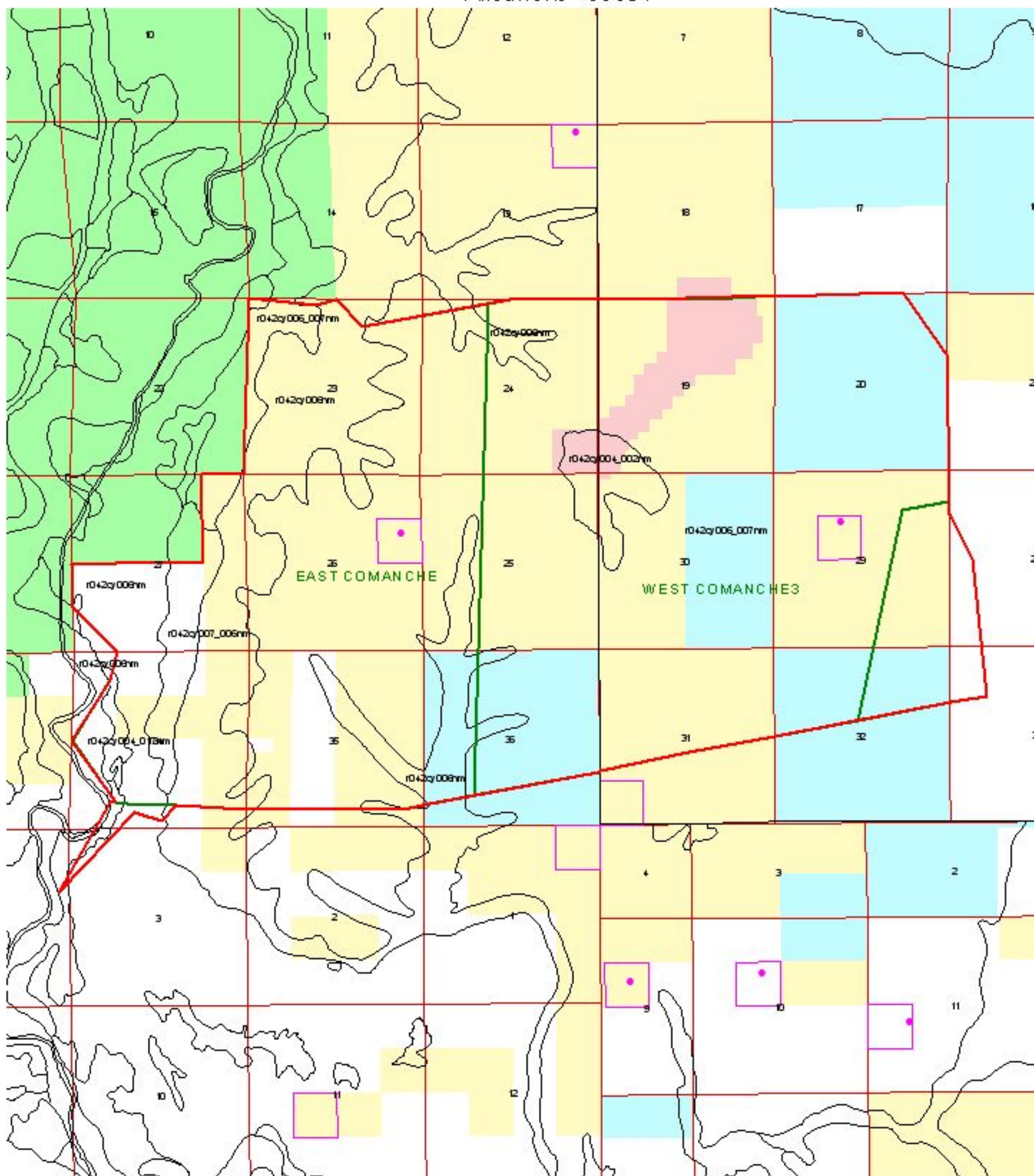
Report Parameters

SITE NAME LIKE 65094-WEST COMANCHE-D186
 ON/AFTER 10/01/1979
 ON/BEFORE 09/30/2001



Rangeland Health Assessment Ecological Sites

Allotment - 65094



Study Plots
40 Acres

Study Locations

State Private Public FWS DOD

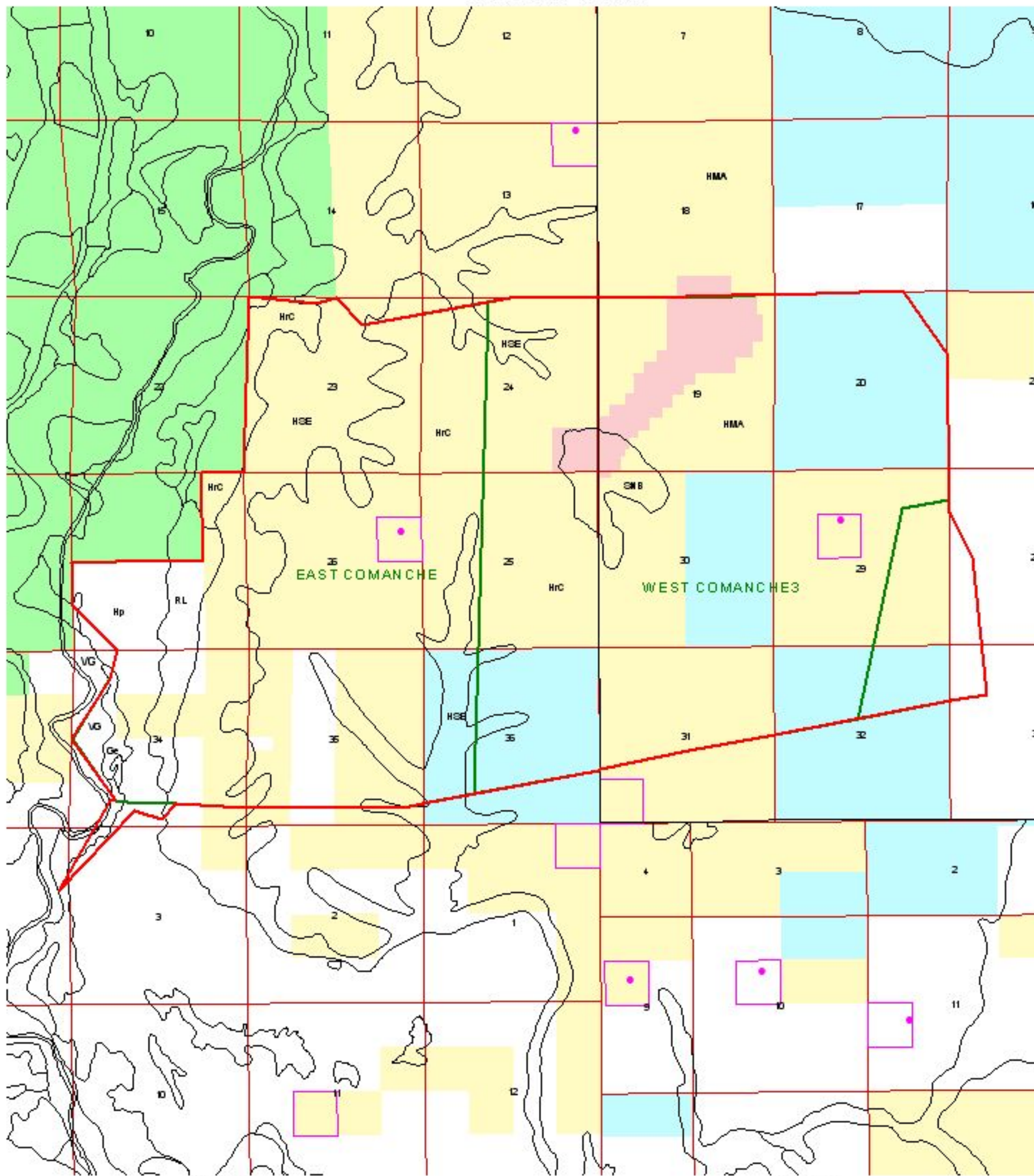
Allotment Boundary
Pasture Boundary
Ecological Site Boundary

Produced by the Roswell Field Office
GIS Specialist on May 16, 2003.

No warranty is made by the Bureau of Land Management as to the
accuracy, reliability, or completeness of these data for
individual use or aggregate use. The data are for reference
only and are not intended for use in any other manner.
Accuracy Statement: This information is for informational purposes only.



Rangeland Health Assessment Soil Mapping Units Allotment - 65094



Study Plots
40 Acres

Study Locations

State Private Public FWS DOD

Allotment Boundary
Pasture Boundary
Soil Mapping Unit Boundary

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GIS Specialist on May 16, 2003.

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